



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,762	04/14/2004	Pei-Shi Lin	MR1793-140	5067
4586	7590	12/13/2005	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			NGUYEN, HUNG THANH	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,762

Applicant(s)

LIN, PEI-SHI

Examiner

HUNG T. NGUYEN

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 5, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2841



DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Zapach et al. (US 5,842,514).

Regard claim 1, 9: Zapach et al. discloses in figures 1-7, A heat duct-equipped heat-radiating device for power supply, comprising: (a) a heat conductive board (18, see column 3, lines 37-58) having a board body section (portion edge of element 18) fixedly connected in a housing (16) of the power supply (10) and tightly attached to a heat source (20, 22) of the power supply (10); (b) a heat duct (38, 40) tightly bridged over the board body section (portion edge of element 18) of the heat conductive board (18, see column 3, lines 37-58), one end of the heat duct (38, 40) outward protruding (end portion of 38, 40) from the housing (16) of the power supply (10); and (c) a fin body (14) composed of multiple fins (42), the fin body (14) being fixedly mounted on outer side of the housing (16) of the power supply (10), the fins (42) of the fin body (14) being respectively formed with corresponding fitting holes (elements 42 are being formed with fitting holes, see figures) through which the heat duct (38, 40) is fitted to contact with the fins (42), whereby the heat generated by the heat source (20, 22) of the power supply

(10) is quickly conducted through the heat duct (38, 40) to the fin body (14) on outer side of the housing (16) and dissipated from the fin body (14) to outer side.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2, 3, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zapach et al. (US 5,842,514) in view of Lin (US 6,903,936).

Regard claim 2: Zapach et al. discloses all elements of the heat duct-equipped heat-radiating device for power supply as described above with respect to claim 1 except, Zapach et al. does not disclose the multiple projecting contact pins are disposed on an edge of the board body section of the heat conductive board for fixedly connecting with a circuit board of the power supply, one side of the board body section being correspondingly attached to a heat source of the circuit board.

Lin discloses the multiple projecting contact pins (271) are disposed on an edge of the board body section of the heat conductive board for fixedly connecting with a circuit board of the power supply, one side of the board body section being correspondingly attached to a heat source of the circuit board.

Zapach et al. and Lin are analogous art because they are from the same field of endeavor to make heat conductive device.

Art Unit: 2841

Therefore, it would have been obvious for one ordinary skill in the art to make contact pins of Zapach to disposed on the board body section as taught by Lin for the benefit of heat reduction.

Regard claim 3, 6: Zapach discloses all elements of the heat duct-equipped heat-radiating device for power supply as described above with respect to claim 1 except, Zapach et al. does not disclose screws are passed through the through holes of the heat source and screwed into the fixing holes of the heat conductive board to tightly attach the heat source to the board body section of the heat conductive board.

However, it is old and well known for one ordinary skill in the art to use screws, hinged to keep parts in place.

Therefore, it would have been obvious for one ordinary skill in the art to use screws, hinged for the benefit of keeping parts in place.

Regard claim 4: Zapach discloses all elements of the heat duct-equipped heat-radiating device for power supply as described above with respect to claim 1 except, Zapach et al. does not discloses the heat duct-equipped heat-radiating device for power supply wherein the heat conductive board further includes a fin section connected on the board body section.

Lin discloses the heat duct-equipped heat-radiating device for power supply wherein the heat conductive board further includes a fin (plurality teeth of element 10) section connected on the board body section.

Zapach et al. and Lin are analogous art because they are from the same field of endeavor to make heat conductive device.

Art Unit: 2841

Therefore, it would have been obvious for one ordinary skill in the art to make fins of Zapach et al. connected on board section as taught by Lin for the benefit of heat reduction.

Allowable Subject Matter

Claim 5, 7, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

There would be no motivation to make this modification as Zapach et al. teach the duct body of the heat duct is tightly attached to and bridged over a connecting seat the connecting seat being correspondingly locked on the heat conductive board.

Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Hussaini (US 6,411,514) teaches heat dissipating assembly, Shinohara et al. (US 6,292,363) teaches cooling for heat radiation, Apfelbacher et al. (US 6,856,503) teaches plurality of heat sink, Baker et al. (US 6,087,800) teaches heat sink with plurality fins.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG T. NGUYEN whose telephone number is 571-272-5983. The examiner can normally be reached on 8:00AM - 5:30PM.


Art Unit: 2841

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMMIE CUNEO can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

HN

HUNG THANH NGUYEN

12/7/2005



KAMMIE CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2841